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USSR Report

AGRICULTURE

No. 1316

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LIVESTOCK

SWINE RAISING IN SIBERIA

Meat, Feed Production Problems

Moscow PRAVDA in Russian 13 Apr 81 p 2

[Article by S. Vtorushin, V. Kiryasov and V. Sapov (Kurgan, Omsk, Novosibirsk, Barnaul): "Reimbursed With Weight Gains"]

[Text] The land to the east of the Urals is rich not only in minerals. The kolkhozes and sovkhozes here are large producers of foodstuffs. Developed grain growing and a powerful mixed feed industry make it possible to engage in animal husbandry on a large scale, particularly in the production of pork. Today our correspondents are discussing problems of this rapidly growing branch in Western Siberia and ways of intensifying it.

After a half hour's ride from Omsk, we are at the central farmstead of the Luzinskiy Sovkhoz, the head enterprise of the Omskiy Bekon firm. Much has been written about this firm. We shall not repeat this, but mention the main thing. Ten years ago the farm produced 700 tons of pork per year. Today it annually sells the state 18,000 tons of meat, and by the middle of the five-year plan this indicator will have increased almost 2.5-fold. This is now the least expensive product in the branch. For the production of each quintal of weight gain, 2.3 man-days and 4.2 quintals of feed units are expended, and the production cost of a kilogram of pork does not exceed a ruble.

"I wish to emphasize," says the firm's general director, A. Mayorov, "that the production buildings and equipment, which include automation and telemechanics, were developed by our specialists and manufactured at domestic enterprises. Of course such a complex costs a good deal of money, but the expenditures are recouped in short periods of time. The meat conveyor operates continuously. Each young hog gains 660 grams a day."

Many hog raising complexes have appeared in Siberia recently. They can be found in Tyumenskaya, Kurganskaya, Novosibirskaya and Kemerovskaya oblasts. Such enterprises will also soon go into operation in Tomskaya Oblast and Altayskiy Kray. Even now they produce more than half of the pork in the region. But this, as specialists have noted, is not the only task of the branch's development. Industrial technology is also being introduced on small farms.

The Krasnaya Zvezda Sovkhoz in Kurganskaya Oblast can serve as an example of quite successful utilization of the achievements of science and advanced practice, taking into account local capabilities. There is no large industrial complex here, but the farm's specialists have managed to assimilate industrial methods of fattening hogs in existing facilities, to arrange exemplary zootechnical and veterinary service, and to mechanize labor-intensive processes completely. Now the sovkhaz annually sells the state 8,000 tons of pork, although not very long ago it received no more than 500 tons. Meat conveyors have been arranged fairly well on the farms of the Kochenevskiy hog raising sovkhaz in Novosibirskaya Oblast, the Belovskiy in Altayskiy Kray, and a number of others.

By developing hog raising in a planned way on specialized complexes and ordinary farms, certain Siberian oblasts have achieved significant successes in increasing the production of pork. Thus, for example, during 10 years Omskaya workers have increased this production from 26,000 to 38,000 tons a year. The same can be said about Novosibirskaya workers, who have increased the sale of pork from the public sector from 27,000 to 38,000 tons. Long standing partners in competition, the neighbors are doing a good deal to augment meat resources from small farms of the kolkhozes and sovkhazes, private, and also subsidiary farms of the enterprises. They rely mainly on deepening the intensive methods of fattening animals. For example, by the end of the five-year plan the Omskiy Bekon firm and the Novosibirskaya Svinoprom association will annually sell 45,000 tons of meat each, which will comprise 90 percent of the overall pork procurements.

One cannot say that these neighbors have worked blindly. Take Altay, for example. Here many good decisions have been made concerning the development of hog raising, but unfortunately, they have not been reinforced with organizational work. For instance, all Siberian oblasts have experienced periods of upsurge and decline in hog raising. But while a number of oblasts have managed, in the shortest periods of time, not only to restore, but also to increase the number of the herd, in Altay, which at one time had a million hogs, there are now only 600,000.

Such fluctuations are the result not so much of a lack of feed during dry years, as of haste in solving the branch's problems. This led to a situation where the once strong hog raising farms of the kray lost their skilled personnel. Hence there were violations in the technology for maintaining the animals, low weight gains and the death of young animals. There is now practically not a single profitable hog raising farm in the Altay.

We have already discussed the effectiveness of the Luzinskiy variant. At the same time in Omskaya Oblast as a whole, 7-8 feed units are being expended per kilogram of weight gain of hogs--considerably more than the norm. The situation is no better in neighboring oblasts. The main problem is that in the majority of the cases the animals are being fed unground or only crushed grain. And concentrates that are balanced in all nutritive substances have full value. They can only be obtained from specialized enterprises of the system of the Ministry of Procurement. They mainly produce only 2 or 3 brands of mixed feed for hogs while 9 brands are necessary. The majority of the farms have to handle feed preparation themselves. Without modern equipment necessary for "seasoning" the rations, the kolkhozes and sovkhazes obtain the simplest mixtures whose return is not great.

"If we had the opportunity to process all of our forage grain into mixed feed," notes the secretary of the Omskaya CPSU obkom, A. Koval'chuk, "then with the same resources we would be able to increase pork production by a minimum of 20 percent."

It is necessary to develop more extensively the network of state and interfarm mixed feed plants and the production of protein-vitamin and other supplements, one of the objects of the Basic Directions for Economic and Social Development. This requires, first of all, coordination of the efforts of the corresponding ministries and departments. This is not being observed so far. A typical example is the story of the mixed feed plant for this same Omskiy Bekon firm. An enterprise with a capacity of 600 tons of concentrates a day should already be producing products, but because of the lack of coordination between the RSFSR Ministry of Agriculture and the republic Ministry of Procurement, it is not even under construction yet. This year the shortage of mixed feeds in the oblast will amount to 200,000 tons, and this shortage will obviously have to be covered again with whole grain.

Many ministries and departments can make their own contribution to strengthening the feed base of animal husbandry. Thus chemical workers have been given the goal of producing 5 million tons of feed supplements under the Eleventh Five-Year Plan. The assignments were determined by branches of the food, timber processing and microbiological industries. It is important that they take the needs of farm workers very seriously. Additionally, agriculture has many reserves of its own. For example, the production of mixed silage and the expansion of areas planted in high-protein crops and grass mixtures makes it possible to appreciably enrich the animals' rations with plant protein and to reduce the expenditure of concentrates by 15-20 percent. One could wish that the valuable experience had been more extensively applied.

Byproducts of the meat and dairy industry are being poorly utilized everywhere. We were informed of the following fact: the Altay and Novosibirskaya and Omskaya oblasts annually produce more than a million tons of milk each, and a considerable portion of it is processed at butter and cheese plants. It would be possible to organize shops for producing protein supplements there.

It is necessary to improve the coordination of the efforts of the involved ministries and departments with those of local agencies for creating a material base for hog raising. So far, specialized farms of the branch are technically much more poorly equipped than are the kolkhozes and sovkhozes that produce grain and milk. They do not have enough combines, pulse crop reapers, tractors or transportation.

Those with whom we talked expressed many complaints against the Ministry of Machine Building for Animal Husbandry and Fodder Production and the Goskomsel'khoztekhnika. As a rule, the changeover of hog raising to an industrial basis involves reconstruction. And it requires new equipment for the premises. But delivery of this equipment has not been properly arranged. There are not enough feed distributors or transporters, and there is no set of equipment for creating a micro-climate. In the opinion of specialists, liquid feed is the most effective form. But while large complexes have the necessary equipment for its preparation and distribution, this equipment is not produced for ordinary farms, not to mention small commercial farms. Here the conveyor is intended only for "dry rations." Hence the immense overexpenditure of concentrates.

"No, we have no special problems with the complexes," agrees the chief of the Novosibirskaya Svinoprom association, M. Zinov'yev. "They are fully supplied by the Soyuzzhivkomplekt of the USSR Gossnab. All the other facilities are various organizations of union and republic jurisdiction. It would be expedient to centralize the delivery of equipment for animal husbandry. For we do a good deal of construction through our own shipping organizations, for which deliveries are generally not planned."

The development of rural industry, the reduction of the time periods for the construction of facilities, and comprehensive building up of areas are the departure points for increasing the effectiveness of capital investments. For instance, the Luzinskiy workers fully share their successes with the collective of Glavomskpromstroy. The construction of the complex before the normative startup deadlines made it possible to bring it up to its planned capacity ahead of schedule.

We had occasion to visit the Ozersk complex which is in the Altay. It has been under construction for five years already and only half the work has been done in this time. The situation is the same at other facilities of the kray Svinoprom association. We are also concerned by the fact that subdivisions of Altaysel'stroy and Kraymezhkolkhozstroy are doing everything to avoid the construction of housing and facilities for social and cultural purposes. Here is what happens: the first section of the Ozersk complex is being prepared for startup, but not a single apartment has been constructed here. As a result, the enterprise is already short 200 workers.

There is no single form of organization of specialized enterprises either. Thus the Omskiy Bekon firm combines 8 sovkhozes: four of them engage in raising hogs and the rest produce feed. The situation is arranged approximately the same in Novosibirsk. But it is quite different in the Altay. The Svinoprom association here last year produced less than half of the pork in the kray. There are 14 more rayon interfarm associations in existence here. Mutual accounts and mutual relations with shareholders are poorly regulated. Specialists of the USSR Ministry of Agriculture, scientists and economists have not given their final word about this yet.

The party and government attach special significance to the development of a food complex. Hog raising is the branch which can accelerate the solution to this problem.

Follow-Up Commentary

Moscow PRAVDA in Russian 18 Aug 81 p 2

[Text] "Reimbursed with weight gains" an article was published in PRAVDA of 13 April under this headline. It was devoted to problems of the development of hog raising in Siberia. As the RSFSR minister of agriculture, L. Florent'yev, told the editorial staff, the article in the newspaper was recognized as correct.

In recent years serious work has been done in Siberia for specialization and concentration of hog raising and for its changeover to an industrial basis. Large complexes have been and are being constructed, and measures have been taken for

increasing the production of meat on the kolkhozes and sovkhozes. During the past five years, 546 new hog raising farms have been created here. Such an approach to the matter has made it possible for the farms of Western Siberia to increase the sale of pork to the state by 23 percent during the past two five-year plans.

At the same time, one cannot but see that the reserves and capabilities of the branch are being poorly utilized. On the kolkhozes and sovkhozes of Western Siberia it is intended to increase the production of pork by 107,000 tons by the end of the Eleventh Five-Year Plan, or by 59 percent as compared to the 1980 level. In order to strengthen the feed base the gross yields of pulse crops will be increased significantly, as will the output of vitamin grass meal and mixed silage.

The production of mixed feeds will be significantly expanded at state and interfarm plants and in the shops of the kolkhozes and sovkhozes. It is intended to allot 235,000-240,000 tons of protein-vitamin supplements for them annually. There are five mixed feed plants in the stage of construction. The startup of the new capacities and other measures will make it possible to process all forage grain into mixed feed by the end of the five-year plan.

The Altayskiy Kray agricultural production association, taking into account the critical remarks in the article, has developed and brought up for the consideration of the bureau of the CPSU Kraykom a program for the development of the branch under the Eleventh Five-Year Plan. It envisions increasing pork production to 70,000 tons as against 43,000 tons in 1980. In order to reinforce the material base of specialized farms through the efforts of patronage organizations, by 1983 51 facilities will be constructed for fattening and there will be 48 facilities to accommodate 120,000 sows. In order to process whole milk substitutes from the by-products of the dairy industry, in addition to the six existing interfarm shops another 13 will be constructed, which will make it possible to satisfy the demand of the kray's animal husbandry for this feed.

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CSO: 1824/93

LIVESTOCK

LIVESTOCK RAISING PROBLEMS REVIEWED, RECOMMENDATIONS OFFERED

Moscow KRSNAYA ZVEZDA in Russian 11 Nov 81 p 2

[Article by V. Kozhevnikov, deputy chief of the Main Administration of Animal Husbandry of the USSR Ministry of Agriculture: "An Important Work Front in the Rural Areas"]

[Text] In the accountability report of the CC CPSU to the 26th party congress, a great amount of attention was given to those problems concerned with achieving further improvements in agriculture, the foundation for the food program. In examining these problems, Comrade L.I. Brezhnev noted that the first task consists of raising the production of those types of agricultural products, a shortage of which would result in serious interruptions in the area of supply. What do we have in mind here? We have in mind mainly the production of meat and other animal husbandry products. "To consider animal husbandry an important front for work in the rural areas," such was the statement contained in the "Basic Directions for the Economic and Social Development of the USSR During the 1981-1985 Period and for the Period Up To 1990," approved during the congress. The congress demanded more complete use of all of the available reserves and opportunities for raising the productivity of the livestock and poultry and increasing the production of meat, milk and other products.

During the Eleventh Five-Year Plan, the average annual production of meat must be raised to 17-17.5 million tons, milk -- to 97-99 million tons, wool -- to 470,000-480,000 tons and eggs -- to 72 billion.

Although these tasks are difficult and complicated, our country will nonetheless commence solving them based upon its tremendous production potential and the increasing skills of its agricultural workers. As a result of fulfillment of the decisions handed down during the March (1965) Plenum of the CC CPSU, which developed the principles for the modern agrarian policies of the party, a new level of quality was achieved for the logistical base and power engineering capabilities of kolkhozes and sovkhoses and improvements realized in the organization of labor and in production operations. Definite successes were also achieved in the production of meat. Judge for yourself: compared to the 1961-1965 period, when the average annual production of meat was 9.3 million tons, during the past five-year plan it increased to 14.8 million tons. The average annual production of meat during this same period increased from 65 to 93 million tons and eggs -- from 29 to

63 billion. This made it possible to increase per capita meat consumption by 16 kilograms above the figure for 1965, milk -- by 63 kilograms and eggs -- by 114.

At first glance, it would appear that these are considerable figures and that progress is being achieved. However, we are still experiencing a shortage of animal husbandry products, especially meat. Why is this? It derives from the fact that the country's population is increasing, its requirements are growing and changes are taking place in the very structure of the food goods being consumed. It is precisely because of these and other processes that the task is being assigned of increasing the production of meat and other animal husbandry products. In turn and in the interest of achieving such increases, a requirement exists for increasing the efficiency of labor at animal husbandry farms and raising the level of mechanization of agricultural operations.

This requirement, so to speak, is of a general nature. The specific operational trends are as follows. First of all, the chief difficulty associated with the development of animal husbandry -- a shortage of feed -- must be overcome. Towards this end, the proportion of forage grain crops with regard to the overall yield of grain must be raised considerably. In addition to grain, a requirement also exists for increasing the production of coarse and succulent feeds and protein additives. Secondly, constant attention must be given to improving the breeding and raising the productivity of the livestock. Thirdly, the private plots of citizens and the subsidiary farms of enterprises and institutes must be operated in a manner so as to provide considerable assistance in the production of meat, milk and certain other products. Finally, considerable importance is attached to reducing losses in animal husbandry products.

How are these tasks being solved today? Nature has not indulged our agricultural workers this year. Since the spring, many regions throughout the country having developed animal husbandry systems have encountered difficult conditions for the cultivation of forage crops. In a number of republics and oblasts, owing to hot weather, less hay has been procured than actually required and the productivity of pasture land has not been adequate.

However, despite these complicated conditions, many farms achieved definite successes in the development of animal husbandry. Compared to last year, increases have taken place in the number of cattle, hogs and poultry. More meat, eggs and wool have been procured than was the case last year.

Many kolkhozes and sovkhoses have succeeded in raising the productivity of their livestock. A fine example has been set by farm workers in Cherkasskaya Oblast, the initiators of a socialist competition for agricultural workers, with regard to increasing the production and sale of animal husbandry products to the state during the Eleventh Five-Year Plan. This year the oblast's kolkhozes and sovkhoses have vowed to increase their production of meat by 9 percent and during the years of the Eleventh Five-Year Plan -- by 33-36 percent. During the five-year period, they plan to raise milk production by 23.5 percent. They achieved fine results over a period of 9 months. Compared to the same period last year, the oblast's farms sold 5,800 more tons of meat and almost 43,000 more tons of milk to the state. Considerably greater quantities of eggs and wool were also sold.

The agricultural workers in Dnepropetrovskaya Oblast, Krasnodarskiy Kray, the Tatarskaya ASSR and other regions throughout the country are actively supporting the initiative displayed by the animal husbandrymen in Cherkasskaya Oblast. Compared to 1980, the farms in Kazakhstan, Uzbekistan, Azerbaijan, Turkmenia, Altayskiy and Stavropol'skiy Krays and in Voronezhskaya, Rostovskaya, Kurganskaya, Kemerovskaya and Chitinskaya Oblasts have increased their production and sale to the state of meat and milk. This is the result of a great amount of work being performed by many tens of thousands of animal husbandrymen and purposeful organizational work by party, soviet and agricultural organs.

In a majority of the regions of our country, the solution for the problem of increasing meat production is associated mainly with raising the production of beef. This derives from the peculiarities of the country's feed balance structure, the availability of large meadow and pasture areas, the potential for increasing the production of coarse and succulent feeds and the extensive use of the waste products of food industry enterprises for the raising and fattening of large horned cattle. An important reserve for increasing beef production is that of further intensification in the raising and fattening of livestock and raising the weight conditions of the cattle. For example, the animal husbandrymen at the kolkhozes imeni Ostrovskiy in Man'kovskiy Rayon and imeni Postyshev in Zolotonoshskiy Rayon, Cherkasskaya Oblast have undertaken the task of raising the delivery weight of their large horned cattle to 480-500 kilograms during the next few years.

At the same time, importance is being attached to the intensive development of swine raising operations. The number of swine is presently greater than in previous years. Large mechanized farms and complexes for the production of pork have been created throughout the country. They are presently producing almost one third of the overall production volume. In addition, the 26th CPSU Congress underscored the need for making better use of the potential for producing pork on the farms of non-specialized installations and on the private plots of citizens.

With each passing year, the kolkhozes and sovkhoses are increasing their sales of young pigs to the population and they are furnishing assistance to the population in acquiring feed and erecting outbuildings. During 9 months of this year, 12.7 million young pigs, or 1.4 million more than for the same period last year, were sold to the population. In order to satisfy intrafarm needs and ensure that the population is adequately supplied with young pigs, the plans call for the restoration, during the next few years, of those swine raising farms which were unjustifiably eliminated and for the creation of new ones at non-specialized farms.

A requirement also exists for maximum increases in the production of mutton, wool, astrakhan pelts and other products of sheep and goat raising. Here we will also encounter the extensive use of an industrial technology, especially for the fattening of sheep at completely mechanized sites. The plans call for the fattening and maturing of sheep at sites to be increased to 10-12 million head by 1985, or two times more than the figure for 1980. The plans call for the accelerated development of sheep raising operations in Kazakhstan, the republics of Central Asia, the Volga region, the Urals and in Siberia.

During the Eleventh Five-Year Plan, the production of poultry meat is to be increased by no less than 0.5 million tons. It will constitute 14 percent of the

overall volume of meat produced. Growth in the production of poultry meat in all zones of the country will be achieved mainly by increasing the quantities of meat types of poultry, raising broilers for meat base upon the construction of poultry factories in the vicinity of large cities and industrial centers and also through the expansion and modernization of existing poultry raising enterprises.

Horse breeding, reindeer raising, rabbit husbandry and fur farming will also undergo further development.

Dairy cattle husbandry is deserving of special mention. It has great reserves at its disposal. Our leading sovkhozes, for example such breeding plants as Lesnoye in Leningrad Oblast, Ploskovskiy in Kiyevskaya Oblast and Zarya Kommunizma in Moscow Oblast are obtaining 5,000-6,000 kilograms of milk annually per cow from large groups of cows. This is being achieved mainly through improved feeding and maintenance conditions for the cows, the introduction of progressive technologies and through improved breeding work.

The agricultural workers are presently confronted by an important task -- completing the preparation of all animal husbandry installations for winter in a timely manner and converting the cattle over to indoor maintenance in an organized manner.

Today the workers on kolkhoz and sovkhoz farms and the workers assigned to animal husbandry -- an important work front in the rural areas -- must fulfill the tasks established by the 26th CPSU Congress for further developing animal husbandry, produce greater quantities of meat, milk and other products and increase the number and productivity of the livestock.

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CSO: 1824/118

LIVESTOCK

REGIONAL PROGRESS, TASKS OF LIVESTOCK WINTERING

Moscow SEL'SKAYA ZHIZN' in Russian 11 Dec 81 p 1

[Article: "High Level of Organization for Wintering Operations"]

[Text] The country's animal husbandrymen must carry out great tasks during the second year of the five-year plan. Success in this work is dependent to a considerable degree upon how well the wintering operations are organized on the farms. The party organizations, farm managers and specialists and the farm workers are presently carrying out purposeful work aimed at ensuring fulfillment of the the instruction handed down by the party: not only to protect the livestock and poultry entirely, but to raise their productivity and, on this basis, to increase the production and sale of animal husbandry products to the state.

This question was the subject of party meetings held recently at all kolkhozes and sovkhozes in Belorussia. The communists analyzed thoroughly the status of affairs in animal husbandry, they uncovered the reasons for the slump in farm productivity, they outlined specific and effective measures and they immediately began implementing these measures. In November, all of the republic's oblasts surpassed the previous year's indicators for average milk yield per cow and for milk sales to the state. During the initial months of the indoor maintenance period, the productivity of the milking herd also increased on farms in Uzbekistan, Lithuania, Latvia, Tajikistan, Armenia, on farms in the Bashkirskaya, Buryatskaya and Yakutskaya autonomous republics, in Stavropol'skiy Kray and in Kostromskaya, Smolenskaya, Astrakhanskaya, Saratovskaya, Amurskaya and a number of other oblasts in the Russian Federation.

The experience of leading workers points out a more reliable method for carrying out wintering operations on the farms in an exemplary manner. This involves first of all the skilful carrying out of mass political work among the animal husbandrymen, with emphasis being placed upon countering the complexities of the winter period by means of the energy and creativity of the farm workers, their expertise and skill, labor activity and discipline. Genuine concern must be displayed for the working conditions and daily routine of the animal husbandrymen, for instilling in them a high moral and material interest in achieving and exceeding the planned results and for launching a socialist competition on an extensive scale.

In the case of animal husbandry, the requirement advanced during the November Plenum of the CC CPSU for carrying out the measures required for ensuring rational and thrifty use of material resources, calls first of all for more efficient use of feed. The most important task will be that of organizing the processing of forage, so as to ensure that not one kilogram is added to a feeding trough in unprocessed form. Use must be made of all available methods, including such simple ones as the mincing, steaming and mixing of feeds. But forage is being employed in a truly efficient manner in those areas where thermochemical and barohydrothermal processing have been introduced, where the preparation of complete ration mixtures has been organized, where nitrogen-containing additives are being employed for ruminant animals and where use is being made of other methods developed by science and leading practice, methods which make it possible to realize the greatest return from each kilogram of haylage and silage, straw and hay, concentrates and root crops. These are precisely the procedures being followed by leading farms in Kirgizia, the Kuban' and in Voronezhskaya Oblast. Unfortunately, this is not the case in all areas. In Permskaya Oblast, for example, only two thirds of the feed preparation shops were in operation in early December. It was for this reason that the milk yields decreased in the Komi ASSR. And in Primorskiy Kray a competition has still not been organized for the operators and machinists attached to feed preparation shops, nor have the moral and material incentives to be awarded to the winners of the competition been defined.

The rational and thrifty use of feed resources implies not only issuing the feed to the animals necessarily in processed form but also, and this is a point of equal importance, correctly distributing the available forage by livestock groups and months of the year and correctly determining how much, when and what types of feed should be furnished to milking cows and livestock at the start and to replacement young stock and cattle during fattening, in order to obtain the planned amount of products from them. An article was recently published in SEL'SKAYA ZHIZN' concerning the valuable experience of animal husbandrymen in Chernigovskaya Oblast, accumulated during the introduction of such productivity programming. This experience is deserving of dissemination on an extensive scale.

The final goal of all of these efforts is to raise the productivity of the farms such that the plans for the first two years of the five-year plan, for the production and sale of animal husbandry products to the state, will be fulfilled and over-fulfilled without fail. Towards this end, the milking of newly calved cows is being organized at dairy farms and a flow-line-shop system is being introduced into operations. An important and yet only slightly used reserve for the production of beef is intensive fattening operations. In swine raising, a great amount of attention is being given to organizing reproduction such that the majority of the young pigs are obtained prior to May and June, they are fattened on cheap summer feeds and sold in behalf of plan fulfillment for the next year.

Winter is the time for replenishing the herd and obtaining calves and lambs. They must be fully protected and all measures must be taken to eliminate barrenness -- an important task of the zooveterinary service. Experience has brought to light many examples of exemplary organization of herd replacement operations. Many farms in Moldavia, Krymskaya and L'vovskaya Oblasts and in the Tatarskaya ASSR are obtaining 90 or more calves from every 100 cows. The secret of these leading farms is simple -- strict observance of the veterinary rules, calving operations

conducted in isolated delivery sections and the maintenance of newly born young stock in sectional veterinary dispensaries for calves, each unit of which is used according to the principle "all occupied -- all loose," with good tending of both the brood and young stock.

The time is at hand for displaying concern for the further development of animal husbandry and for striving to achieve high indicators during the new five-year plan. In developing the crop structure and selecting the agricultural practices to be employed in the cultivation of forage crops, taking into account the conditions found in each region, the planning should be based upon the need for satisfying completely the requirements of the farms and the private livestock of kolkhoz members and sovkhos workers for internally produced forage of all types and for creating carry-over insurance funds. This will serve as a guarantee that the planned indicators for the development of each branch will be achieved and it will make each branch more stable and able to maintain steady rates of growth during all years notwithstanding the weather conditions.

"The plans should be prepared better and carried out better. Production operations should be organized and carried out in a better manner. In short, more efficient work should be performed" these words by L.I. Brezhnev are serving as the motto of kolkhoz and sovkhos animal husbandrymen.

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CSO: 1824/120

LIVESTOCK

PROGRESS, FAILINGS OF RSFSR LIVESTOCK PRODUCTION REVIEWED

Moscow SOVETSKAYA ROSSIYA in Russian 18 Dec 81 p 1

[Agricultural review prepared by specialists of the RSFSR Ministry of Agriculture: "Difficult Days of Wintering"]

[Text] This year the animal husbandrymen in many regions of the country underwent a serious examination. The dry summer precluded the possibility of creating the required feed supplies. But even under these conditions, as borne out by the example set by leading workers, it is possible to raise the productivity of the herd. For example, the 50 Let Oktyabrya Kolkhoz in Tetyushskiy Rayon, Tatarskaya ASSR did not sidestep its difficulties. However, the party organization, the administration and all of the farm's workers were called upon to place in operation all available reserves for increasing the production of animal husbandry products and to organize the non-waste product use of feed. This method is based upon the preparation of a complete ration mixture for various groups of animals, using feeds prepared in advance.

Today the initiators are following the appeal issued by the animal husbandrymen in Cherkasskaya Oblast and they are successfully solving one very important task -- over-fulfilling the established tasks on a daily basis. The workers on the kolkhoz farm are confident that they will fulfill the socialist obligations undertaken for the first year of the Eleventh Five-Year Plan and for the current wintering period.

And this is not a singular example. In keeping with the conditions imposed by indoor maintenance for the livestock, many farms in the Tatarskaya ASSR are attaching priority importance to the preparation of feed and to continuous operations by the feed preparation shops. There are presently more than 1,600 such units in operation on large-horned cattle farms in the autonomous republic. Almost all of the straw consumed since the beginning of the wintering period has been issued to the animals in processed form. Use has been made here of 8,500 tons of coniferous-ramal feed for supplementing the ration.

This same approach is typical of a number of kolkhozes and sovkhoses in Moscow and Leningrad Oblasts, where 15 kilograms of milk are being obtained daily from each cow.

Unfortunately, this fine example is not being followed on all farms throughout Russia. Milk production continues to decrease on many farms in Kirovskaya and

Permakaya Oblasts and in the Mariyskaya, Mordovskaya, Chuvashskaya and Udmurtskaya autonomous republics. Quite often this results from mistakes made by the kolkhoz and sovkhoz leaders themselves. In Pskovskaya Oblast, for example, more feed is available for the animals than was the case last year and yet the productivity of the cows is less by 10 kilograms than the figure for last year. This same alarming situation is continuing at the present time. The principal cause -- a lack of organization. Even prior to the commencement of the indoor maintenance period, many farms lacked an adequate supply of feed owing to the fact that they were unable to bring it in from the field in a timely manner. Efficient measures were not undertaken to prepare forage supplies. Almost one half of the oblast's feed preparation shops lay idle throughout one and a half months of wintering, despite the fact that one third of them had been fully prepared for operations. As a result, only 26 percent of the straw supplied to the herd here was in prepared form. The milk production problems in Vologodskaya, Yaroslavskaya and Novosibirskaya Oblasts are also being handled in the same irresponsible manner, with no more than one third of this feed undergoing processing.

The enterprises of Goskomsel'khoztekhnika must also share some of the blame for not having ensured efficient work by the feed preparation shops. Timely assistance was not furnished to the farms for acquiring equipment and spare parts. Throughout the republic as a whole, more than 3,000 feed preparation shops lie idle as a result of technical discrepancies.

The animal husbandrymen are standing their difficult watch on the farm during all types of weather, both on weekdays and holidays. As is well known, nobody rises earlier than them in the rural areas and thus importance is attached to displaying concern not only for creating all of the conditions required for fruitful work by the milkmaids but also for their daily routine and recreation. The majority of Russian farms presently have recreation and reading rooms and clubs for the animal husbandrymen. Many of them have truly become centers for the conduct of organizational and mass-political work.

7026

CSO: 1824/126

LIVESTOCK

BREEDING FARMS IMPORTANT TO SUCCESS OF KIRGHIZ LIVESTOCK SECTOR

Moscow PRAVDA in Russian 26 Dec 81 p 2

[Article by A. Kvitko, honored scientific figure of the Kirghiz SSR, Frunze: "Under Triple Subordination"]

[Text] Pedigree cattle -- the gold fund of animal husbandry. It is precisely this fund that determines the achievements realized by the branch. The first Kirghiz animal breeders commenced their work practically from zero. During the republic's developmental years, there were no pedigree cattle here. Since that time, the scientists and zootechnicians have developed new and highly productive herds. A large breeding base has been created in Kirghizia having an extensive network of stations, farms and plants for the raising of valuable animals. It is precisely because of the improvements realized in the quality of the cattle that an increase has been achieved in the production of goods.

The state breeding plants have become powerful breeding grounds for highly productive animals. Over the past 20 years, the average annual milk yield here increased from 3,794 to 4,581 kilograms. At the Sokulukskiy Experimental Farm, it exceeded 5,000 kilograms from each of almost 1,000 cows of the Alatauskaya strain. And indeed several decades ago the productivity of this strain scarcely reached 500 kilograms!

The pedigree qualities of the animals are making it possible to obtain 3,000-3,500 kilograms or more per cow in Kirghizia. But during 1980 the average yield amounted to 2,685 kilograms.

The 26th party congress assigned the animal breeders the task of raising the level of breeding work and creating herds which would meet the requirements for an industrial technology. Our state breeding plants are supplying just such "construction material." But it is apparent that at times the productive potential of the pedigree cattle is being utilized in a poor manner. The principal reasons -- a shortage of feed, poor planning and failure to evaluate properly the role played by the state breeding plants.

The Sovkhoz imeni Strel'nikovaya has long been praised for its highly productive herd. It supplies pedigree products for both domestic and foreign markets. But the quantity of such products is low. A strong feed base has not been created for

the enterprise. The number of animals has increased threefold since the breeding plant was organized and yet the degree to which the animals have been supplied with forage has dropped from 86 to 58 percent. At the present time, 11.4 quintals of feed units are being procured per standard head of cattle. Obviously, it is difficult to achieve good breeding under such conditions.

Why is it that the sovkhos finds itself in such a situation? Here guilt rests with both the leaders and specialists of the farm. They devoted very little attention to raising the culture of farming. But this was not the only reason. A considerable portion of the resources and strengths was concentrated on subsidiary branches. What is the problem? The rayon organizations tasked the state breeding plant with a large number of plans. The Sovkhoz imeni Strel'nikovaya presently has 12,000 sheep, including 5,000 ewes, and 390 horses, the annual maintenance of which involves the consumption of approximately 60 percent of the feed being procured. These branches have operated at a loss here over a period of a number of years and they have restrained work carried out in the principal branch.

It has become a tradition to provide the state breeding plants with plans for all of the types of work being carried out in a particular agricultural zone. For example, let us take the Sokulukskoy Experimental Farm. Here the proportion of pedigree cattle, compared to the overall structure of commodity output, exceeds 60 percent. The net profit from the sale of the cattle amounts to more than 1 million rubles annually. Nevertheless, the enterprise is provided with plans for the raising of sugar beets and various vegetables.

Beyond any doubt, full use must be made of the land and its fertility and potential. And it is quite good when a particular specialized farm, in addition to milk or meat, is able to furnish grain and potatoes and raises tomatoes, watermelons or apples. But it is not right if it has a dozen crops, with the manager of the farm having to account for each one.

This year the breeding plants in Kirghizia have for all practical purposes been transformed into conventional sovkhoses. Is this justified? I do not believe so. Indeed, in connection with the overall procurements of agricultural products, they still do not "make the weather." For example, four state breeding plants are annually producing only 0.03 percent of the overall volume of milk. The same holds true for mutton and wool; their proportion is so miserly that it does not even lend itself to good accounting.

The solution for this situation lies in "returning" specialization to these farms. The work of these enterprises should be evaluated based mainly upon the productivity level of the herd and upon how many improvement bulls and pedigree young stock were raised. A requirement also exists here for reorganizing the forage base. A sharp turn for the better must be realized in connection with increasing the role played by forage crops. If this same sovkhos-plant imeni Strel'nikovaya is released from having to produce subsidiary products, it will be able to increase considerably its production of feed.

Ideally, thought should be given to regulating control over the state breeding plants. They operate under a system of triple subordination -- the republic's

Ministry of Agriculture, the Kirghiz Scientific-Production Association for Animal Husbandry and rayon organizations. Naturally, each "boss" has his own particular interests.

Science views the state breeding plants as an experimental base. However, the association lacks the resources required for it to exert an active influence on the work of these enterprises. The subordination of the state breeding plants to the republic's Ministry of Agriculture is rather conditional. On the other hand, the rayon level is able to direct them in a very thorough manner. However, as already mentioned, it does this to the detriment of the interests of the principal branch.

What satisfies most the rayon committees and rayon executive committees? The plans and production volumes for the agricultural products. Breeding work -- is less noticeable and even overshadowed among these indicators. For example, the Talasskiy Rayon Party Committee diligently sought, over a period of 3 years, to build an interfarm sheep raising complex on the land of the Dzhergetal'skiy State Breeding Plant. Its efforts were in vain. The enterprise was divided up. The state breeding plant was moved from a well planned territory to an "empty" place. Success was obviously inspired. Once again the rayon party committee raised the question of dividing up still further the Dzhergetal'skiy plant, having decided to withdraw 1,500 more hectares of arable land from it. Such was the action selected -- instead of furnishing assistance to the enterprise in creating intensive feed production operations here.

Recently the rayon, oblast and republic procurement organizations have been requiring not only planned but also above-plan deliveries of grain from all of the state breeding plants. For example, the Sokulukskiy Breeding Plant produced only 5,000 tons of grain this year and the farm provided only 2,800 tons against a requirement calling for 4,000 tons.

Future development of the branch will be restrained by a "loose" system of control. Thus the time is at hand for studying very thoroughly the status of affairs. The work of the breeding plants exceeds the limits of a particular branch or republic. They improve the herds in vast regions of the country and it is believed that such enterprises are deserving of special concern. The logistical base must be strengthened in every possible way and normal production, cultural and domestic conditions must be created for the collectives. At the present time, the personnel are not being retained here. Nor is this surprising: quite often the wages paid to the specialists and leaders are lower than those issued at conventional farms. And there is still one other paradox: the category of a plant is established according to its commodity output volume and regardless of the number and types of pedigree cattle it supplies.

Thus, success in the further development of animal husbandry is greatly dependent upon active work being performed at the state breeding plants. Together with the scientific institutes, they must participate more actively in the linear breeding of cattle and in the use of world genetic resources and strain regionalization. Naturally, appropriate rights must be extended to these enterprises in order to accomplish this. In my opinion, the work of these plants should ideally be under the direction of breeding centers and the All-Union Scientific-Production

Association for Breeding Work. The rights of the specialists and leaders at these enterprises must be expanded and they should be allowed to cull out and select animals in conformity with the tasks for carrying out breeding improvements in the herds.

During the Eleventh Five-Year Plan, the Kirghiz Scientific-Production Association for Animal Husbandry must complete the breeding of a new type of dairy cattle, one that will be suitable for complexes, based upon lines that have already been created. The republic's state breeding plants can make a considerably greater contribution towards the development of dairy cattle husbandry, provided they carry out their work in a state manner and ignore narrow-minded and immediate interests.

7026

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KOLKHOZ, SOVKHOZ RELATIONSHIP WITH PRIVATE LIVESTOCK RAISING

Moscow EKONOMIKA SEL'SKOGO KHOZYAYSTVA in Russian No 11, Nov 81 pp 68-73

[Article by Nikolay Ivanovich Kaltykov, candidate of agricultural sciences, manager of the Odesskaya Oblast Interfarm Production Association for Poultry Raising: "Forms of Combining Public and Private Subsidiary Farms in the Production of Animal Husbandry Products"]

[Text] The adoption by the CPSU Central Committee and the USSR Council of Ministers of the decree, "On Additional Measures for Increasing the Production of Agricultural Products on the Private Subsidiary Farms of the Citizens" was another manifestation of the concern of the party and government for fuller satisfaction of the population's nutritional needs. With the large amount of attention and support from the state, private subsidiary farms are becoming a large agrarian production unit for the country and an important source of augmenting food resources.

In his report at the 26th CPSU Congress, Comrade L. I. Brezhnev noted: "The basis of socialist agriculture has been and remains the kolkhozes and sovkhozes. But this certainly does not mean that one can disregard the capabilities of private subsidiary farms. Experience shows that these farms can be an essential support in the production of meat, milk and several other products. Orchards, gardens, poultry and livestock belonging to the workers constitute a part of our general wealth." And indeed, under the Tenth Five-Year Plan private subsidiary farms, of which there are more than 37 million in the country, produced about 25 percent of the entire gross agricultural product, including 60 percent of all kinds of potatoes, 30 percent of the vegetables, 40 percent of the fruits, 30 percent of the meat, 30 percent of the milk, 37 percent of the eggs, 56 percent of the honey and 20 percent of the wool.

Despite the fact that private subsidiary farms are not collectivized and are not organized in a planned way, they are directly interconnected with the planning agencies of socialist agriculture and industrial production. The kolkhozes and sovkhozes allot farmstead plots to their workers and employees, render them assistance in cultivating the land, and supply them with feeds, mineral fertilizers and so forth. In turn, the agricultural products from private subsidiary farms are used in public production. Therefore the private subsidiary farm, as one of the forms of production of agricultural products under socialism, has nothing in common with the small private farm. Private subsidiary farms are maintained on the basis of private socialist property, and a large amount of labor of the workers,

employees and kolkhoz workers who have these farms is expended in kolkhoz or sovkhos production. Consequently, the incomes of the owners of subsidiary farms is also formed largely as a result of incomes from public farming. The latter income constitutes approximately 75 percent of the overall amount of income of the family of the kolkhoz worker.

The state's support of private subsidiary farms is conditioned not so much by their economic significance as by the fact that in their social essence they are a part of socialist agriculture, and relations concerning their maintenance are included in the system of socialist production relations. In terms of their socio-economic functions and goals, and in terms of the closeness and the nature of reproduction ties, private subsidiary farms are included in socialist production.

The leading means of production on a private subsidiary farm is land, which is granted to its master not for ownership, but for utilization. The area of the farmstead plot at the disposal of the family of a kolkhoz worker, according to the model regulations of the kolkhoz, can be as much as 0.5 hectares, including land occupied by structures, and for irrigated land--0.2 hectares.

In order for private subsidiary farms not to cause harm to public production by taking away workers, the kolkhozes and sovkhoses must more actively help those who have them with technical equipment during the period of plowing the farmstead plots, allot them automotive transportation during the harvest and the procurement of feeds, render them assistance in the construction of outbuildings for maintaining livestock and poultry, and so forth.

Much is being done for the development of private subsidiary farms in Odesskaya Oblast. Each year the kolkhozes and sovkhoses sell the population a large quantity of cattle and poultry. During the Tenth Five-Year Plan they sold the population a total of 62,000 calves, 1 million piglets, 81,400 sheep, and about 50 million head of poultry. This is a great deal of assistance. It made it possible not only to lessen the reduction of the number of head of cattle and poultry on private subsidiary farms, but even to increase this number. While from 1971 through 1975 the number of large horned cattle, hogs and sheep on private subsidiary farms of the oblast decreased by 148,700 head, or by 22.3 percent, from 1976 through 1980 it increased by 1,000 head or by 3.8 percent.

During the first half of 1981 176,400 head of large horned cattle, hogs and sheep and 12.2 million head of poultry were sold to the population or 36,300 and 4 million head more, respectively, than during the same period of 1980. At the present time the private subsidiary farms of the oblast keep 96,500 head of large horned cattle (including 56,500 cows), 134,000 head of hogs, and 233,700 head of sheep and goats.

It must be noted that a large part (74.1 percent) of the private cattle and poultry are kept on private subsidiary farms of the kolkhoz workers. This is brought about by the fact that for several years the oblast has been selling grain to the kolkhoz workers as physical payment for labor (0.3-0.6 kilograms for each ruble earned), which makes it possible for them to use part of it for feed for private cattle and poultry.

According to data of the oblast statistical administration, under the Tenth Five-Year Plan as compared to the Ninth, the average annual production of meat per one private subsidiary farm increased by 23.2 kilograms (amounting to 212.1 kilograms), eggs--by 176 (1,116.2), wool--by 0.11 kilograms (1.36 kilograms). Meat procurements from the population through consumers' cooperation and the procurement office during the past five years has been at the level of 18,600-21,600 tons, and eggs--21.8-27 million per year.

The initiative of local soviets of peoples' deputies, managers and specialists of farms, and rural residents plays a large role in increasing the production of animal husbandry products on private subsidiary farms. The Belolesskiy and Trapovski rural soviets of Tatarbunarskiy Rayon and the Rynopol'skiy rural soviet of Berezovskiy Rayon came out with a valuable initiative. They committed themselves to providing for the sale of the necessary quantity of poultry and cattle to the population and to purchasing a large quantity of eggs and meat in the autumn. The Odesskaya Oblast soviet of peoples' deputies discussed the initiative of these rural soviets. It was recommended to all ispolkoms of rayon, city, rural and village soviets that they search out reserves for further increasing the production and procurements of surplus products of cattle and poultry raising on private subsidiary farms of the population and take the necessary measures to increase the sale of cattle and poultry to the population. All this contributed to increasing the production of eggs and meat on private subsidiary farms.

In recent years the oblast has originated many undertakings directed toward complete utilization of the capabilities of subsidiary farms. Of these, special attention should be given to the mutually advantageous cooperation of kolkhozes, sovkhoses and private subsidiary farms in raising and fattening cattle and poultry. The initiators of the organization of the production of meat on a contractual basis with private subsidiary farms and with the support of party organizations and local soviet and economic agencies were the workers of Tatarbunarskiy, Savranskiy, Anan'yevskiy and several other rayons.

This question was considered by the oblast committee by the Communist Party of the Ukraine, and on the basis of this the oblast oblispolkom adopted the corresponding decision and provision for cooperation with kolkhozes and sovkhoses with private subsidiary farms of kolkhoz workers, other workers and employees of sovkhoses, and it recommended model agreements which should be concluded among them. Farms of the oblast have been using these documents for three years.

At the beginning of 1981 the USSR Ministry of Agriculture in conjunction with interested ministries and departments developed and approved a standard agreement which has the same form for all republics and oblasts. In keeping with this document the sovkhoses and other agriculture enterprises are permitted and the kolkhozes are recommended to conclude on a strictly voluntary basis agreements with kolkhoz workers, other workers, employees and other citizens who live on their territory and voluntarily participate in public production, and also with pensioners for raising and selling livestock and poultry and for selling surplus milk. It was established that the products purchased under agreements are to be sold by these farms to the state and included by them in the volume of production in the fulfillment of the state plan for procurements with the payment of the established increments. Moreover the population that raises livestock under agreements can

keep livestock in excess of the established norm for maintaining it on private subsidiary farms. Livestock which is kept within the limits of these norms is utilized at the discretion of its owners: for satisfaction of personal needs and sale to consumers' cooperation organizations at agreed upon prices as well as sale on the markets. Administrative intervention is not permitted here.

The aforementioned agreements stipulate the commitments of kolkhozes, sovkhoses and other agricultural enterprises for rendering assistance to kolkhoz workers, other workers, employees and other citizens by providing them with young cattle and poultry and feeds, and in allotting sections of land for haying and grazing of cattle.

At the 26th CPSU Congress Comrade L. I. Brezhnev said: "It is necessary to help kolkhoz and sovkhos workers by giving them young animals and feeds. This pertains to those who keep cattle as private property and to those who are prepared to fatten cattle that belong to the kolkhozes and sovkhoses. This practice exists in a number of republics and oblasts and it should be extended."

The mutual advantage of the new practice became obvious in a short time. Three years ago residents of the village of Beloles'ye were the first in Tatarbunarskiy Rayon in Odesskaya Oblast to begin raising poultry on the basis of mutually advantageous cooperation. The population resolved to fatten on a contractual basis the traditional poultry of this area--geese. The agreement which was proposed for the kolkhoz imeni Kutuzov and the Beloles'ye village soviet clearly determined the rights and responsibilities of both parties. The kolkhoz delivers one-day-old geese to the village stockyard and provides them with concentrated feeds: initially two kilograms and then three kilograms per one kilogram of increase in live weight of this poultry which is to be sold. In turn, each resident of the village who has concluded an agreement is obligated to raise and sell the kolkhoz 70 percent of the geese he has accepted for raising with a live weight of no less than four kilograms. The kolkhoz pays 50 kopecks per one kilogram of live weight of geese with the provision that the young animals and the feed are initially allotted free of charge.

The first agreements for raising poultry were concluded by members of the party committee, managers and specialists of the farm and rural activists. Many residents of the village followed their example. Even in 1979 the residents of 280 buildings, that is, one-third of all the population of Beloles'ye were raising poultry on a cooperative basis.

Dmitriy Ivanovich Belyy, a teacher in the secondary school, and his wife, Yelena Grigor'yevna, a worker in the local store, were among the first to begin raising geese. They have always raised poultry and young hogs on their farmstead plot, and so they were glad to respond to the proposal of the kolkhoz board. During the past three years the Belyy family has been raising 1,000 geese or more. The adults are mainly responsible for caring for the poultry and the children help them. Mikhail, a senior in school, has made roosts for the geese and gives them water, and if necessary he brings them feed. The kolkhoz board has allotted carts to the family for transporting green feeds. Mikhail's younger sister, Olya, and his brother, Gena, are always with him. The family's common concern for the poultry and domestic animals help the parents to raise children who love work and to instill in them a feeling of responsibility for matters entrusted to them. In 1980

the Belyy family released to the kolkhoz 70 percent of the fattened geese with an overall weight of 2,131 kilograms. They were paid about 1,100 rubles for this. Additionally, they were able to keep the other 30 percent of the geese. This year the family has taken 1,000 geese for fattening from the kolkhoz.

The family of Pavel Ivanovich Yatsenko, a resident of the same village, has taken more than 1,000 geese for fattening for three years in a row. Along with Pavel Ivanovich, his wife, Yevgeniya Yevdokimovna, an attendant at the local hospital, and their son who is an upperclassman in school also care for the poultry. After three weeks all of the poultry are kept in heated facilities which, with the help of the kolkhoz, were constructed from inexpensive material on the shore of an estuary. For fattening the geese, in addition to the concentrated feeds obtained from the kolkhoz, they use foodscraps and green mass from the garden which the entire family grows on otherwise unsuitable sections of land, roadside areas and in forest strips.

The constant concern and attention of the kolkhoz board and the village soviet to the large and small needs and concerns of the owners of private subsidiary farms has helped to enlist rural residents in raising poultry on a contractual basis. Kolkhoz specialists have taken responsibility for veterinary service for the geese that have been turned over for fattening. The farm transports the poultry that has been raised with its own transportation according to a clearly worked out schedule, and there are never any delays.

As a result of the implementation of the program that was developed for increasing the production of meat on the basis of cooperation between the kolkhoz and the village in 1980 the economy received an additional 110 tons of meat, mainly goose and pork (many residents of Beloles'ye fatten geese in the summer and two or three young hogs in the winter). Meat production on the kolkhoz increased from 366 tons in 1976 to 630 tons in 1980, or by 72.1 percent.

In 1981 more than 330 households or 40 percent of the population of the village concluded agreements with the kolkhoz for fattening 12,000 geese, 500 piglets and 110 male calves. This will make it possible to produce no less than 120 tons of meat on private subsidiary farms without reducing the volumes meat production in the public sector, where 81 percent of all the meat is produced.

A large amount of work for organizing the fattening of poultry on a contractual basis is being done on other farms of Tatarbunarskiy Rayon, and also in Saratskiy, Baltskiy, Kominternovskiy, Kiliyskiy and other rayons. Here not only geese, but also chickens and other kinds of poultry are raised on the basis of mutually advantageous cooperation.

People began to engage in the fattening of large horned cattle on a contractual basis in the oblast at the end of 1977. The first to adopt this new form of cooperation between private subsidiary farms and public farms for fattening this kind of animal was the Kolkhoz imeni Lenin in Savranskiy Rayon. Members of this kolkhoz fattened 691 head of young cattle on their private subsidiary farms in 1978, and the live weight of one head by the time the fattening was completed was 380 kilograms. In 1979 these indicators were even better--831 head and 414 kilograms. They received a net profit of 117,000 rubles from the sale of the fattened

livestock, and the level of the profitability in the branch increased from 6.8 to 18.1 percent during the year.

Meat production on the kolkhoz increased considerably during 1979-1980. While in 1978 700 tons of it was produced, in 1980 it produced 1,037 tons. Last year, on the basis of close interrelations with the owners of private subsidiary farms, the enterprise produced 498.4 tons of beef. The live weight of more than 90 percent of the fattened young male animals reached 415-420 kilograms. The average daily weight gain of one male calf amounted to more than one kilogram. Every second family living on the territory of the enterprise participated in the fattening of the 1,250 kolkhoz male calves. The maximum number of male calves (2-3 head) is given by the kolkhoz board to leading production workers and kolkhoz pensioners.

Not only kolkhoz workers and pensioners engage in fattening livestock on a mutually advantageous basis, but also the rural intelligentsia--teachers, physicians, agricultural specialists--and also housewives and workers and employees who do not participate in the kolkhoz's public production, but live on the territory of the enterprise.

The favorable distribution of the population points of this kolkhoz (near forests and lowlands of the Bug River) makes it possible for its residents to take advantage of natural pastures, land that is otherwise unsuitable, roadside areas and forest strips, not only for grazing animals, but also for procuring feeds for the winter period. Many residents here use sorghum (grain and byproducts from the manufacture of brooms), which is traditional here, in the final period of fattening. Moreover, the kolkhoz allots for each head of livestock that has been turned over for fattening 1.5 quintals of concentrated feeds, 1.5 tons of pulp and silage, and up to 1 ton of straw or chopped straw.

The initial payment for the live weight that is gained depends on the amount and the state of nutrition of the male calves, that is, it is made at prices that make it possible to encourage the fattening of kolkhoz male calves on private subsidiary farms to high conditions for release. As a result of the sale to the state of livestock that is only in high weight conditions (some of the head of cattle are considered to be above-plan), the farm has raised the level of profitability three-fold.

Public animal husbandry is developing successfully on the kolkhoz this year, and about 1,000 kolkhoz male calves are being fattened on private subsidiary farms on a cooperative basis. Local residents are glad to take over kolkhoz male calves for fattening, and within 11-12 months they achieve a gain of live weight per one head of 350-380 kilograms. Thus during three years the family of G. F. Gorash has fattened six kolkhoz male calves. During this time the overall gain of live weight amounted to 41 quintals. In 1979 they took two kolkhoz male calves weighing 64 and 76 kilograms, and within 11 months they fattened and released them with weight gains of 414 and 420 kilograms. For this they received more than 1,000 rubles from the kolkhoz cash fund. The kolkhoz pensioner I. N. Stel'makh fattened five kolkhoz male calves during three years. The kolkhoz allotted part of the feed. The feed consisted mainly of various kinds of grasses, ground grass and cut straw, to which concentrated feeds were added. In the spring the animals were allowed to graze on land that is unsuitable for other purposes. Additionally, during the

final period of fattening sorghum byproducts from the manufacture of brooms were used. All of the male calves released were in high weight conditions, the average daily gain of live weight per one head being 1.1 kilograms. During 1978-1980 the labor veteran P. A. Khominskiy fattened three male calves on a cooperative basis. He thinks that this is interesting work, that it is not so much trouble, and that it is a good way to augment the family budget.

The fattening of livestock on a cooperative basis is being applied on other farms of Savranskiy Rayon as well. In 1980 3,602 head of young large horned cattle were delivered to private subsidiary farms of the rayon for fattening. About 1,500 head with an overall live weight of 600 tons were released from fattening. The rest of the livestock remained on the private farms for the winter period. During six months of this year the farms of the rayon released to the state 420 tons of beef that had been produced by the population on a cooperative basis. Another 2,350 head of livestock are still being fattened.

The form of cooperation between the kolkhoz and the village farmstead is now being applied on other farms of the oblast as well. Take, for example, the Kolkhoz imeni Kirov in Anan'yevskiy Rayon. It has 1,240 farmsteads which maintain as many head of large horned cattle (almost half of them are cows), 900-1000 hogs, 600-800 sheep and goats, and an average of 20 head of poultry per one farmstead.

The kolkhoz board devotes a good deal of attention to these private subsidiary farms of the kolkhoz workers. Twice a year it takes an inventory of the animals and poultry, which makes it possible for farm specialists to correctly evaluate the condition of animal husbandry and the movements of the livestock. Work for increasing the number of animals and poultry on the farms of the kolkhoz workers is carried out according to the principle that the private farm is a common concern. The kolkhoz management is not indifferent to how the farmstead plots are utilized, what kinds of livestock are being kept by the kolkhoz family, and what the family needs.

For a number of years the kolkhoz board has strived to activate the reserves for increasing the production of agricultural products that are to be found in farmstead plots, each year their interrelations become closer and closer. This mutually advantageous cooperation has been reflected primarily in the increase in beef production. In 1980 the farm increased meat production to 524 tons as against 310 tons in 1976. During the past 3-4 years, 30-40 percent of the beef sold to the state by the kolkhoz came from private subsidiary farms where the young large horned cattle were fattened on a contractual basis. During all this time two forms of agreements were concluded here: for fattening male calves that were born on the private subsidiary farms of the kolkhoz workers, and for fattening male calves that the kolkhoz has transferred to the private subsidiary farms of kolkhoz workers and other citizens who live on the territory of the kolkhoz. In both cases the kolkhoz allots to the population the quantity of feed necessary for fattening the young animals to high weight conditions. The kolkhoz board pays the population 1 ruble 27.2 kopecks per one kilogram of gain of live weight of fattened livestock. Additionally, a certain number of days off are granted for each 100 kilograms of weight gain of the livestock. Thus the entire sum of payments (for increased weight gain and days off) is entered into the personal account of the kolkhoz worker as direct wages.

The conclusion of the two kinds of agreements contributes to improving the interrelations between the kolkhoz and the owners of private subsidiary farms and to placing these relations on a stable basis, on the basis of stable mutually advantageous cooperation. This kind of relationship between the kolkhoz board and the private subsidiary farms makes it possible to increase the number of head of animals and poultry not only in its own villages, but also in the rayon as a whole. Thus on the 16,000 village farmsteads in Anan'yevskiy Rayon there are 8,000-9,000 head of large horned cattle (including 4,400 cows), 5,000-6,000 hogs, 2,500-3,000 sheep and goats, and many head of poultry.

Public farms of the rayon render assistance to kolkhoz workers in acquiring livestock and poultry, annually selling the population 5,000-6,000 calves and young pigs, and 400,000-450,000 head of young poultry. The following principle is observed in the rayon: each rural family is not only a consumer of meat, but also a producer of it. Therefore in 1980 the village farmsteads of this rayon fattened more than 2,000 head of large horned cattle on a cooperative basis. This year they are fattening 1,700 head of kolkhoz large horned cattle as well as hogs and poultry.

In Baltskiy Rayon in 1980 1,006 head of large horned cattle, 511 hogs and 3,500 head of poultry were fattened under agreements. At the beginning of July of this year there were 2,500 head of large horned cattle and 200 hogs being fattened on private farms.

The experience in fattening livestock on a contractual basis on the Rossiya Kolkhoz in Saratskiy Rayon is interesting. There at the beginning of May 1981 seven families of rural residents took over 35 male calves with an average weight of 82 kilograms per head under an agreement with the kolkhoz without causing harm to the main work. With the help of the kolkhoz they constructed a lightweight shed in a forest strip on the bank of a kolkhoz pond and manufactured feeders and waterers. The families also allowed the livestock to graze on land that is unsuitable for other purposes and in forest strips. At haying time they procured 17.5 tons of hay for feeding the male calves during periods of inclement weather and during the autumn and winter periods. In turn, the kolkhoz board sold these families two tons of green mass and 300 kilograms of concentrated feeds per head of livestock at state procurement prices. The agreement with the kolkhoz was concluded for each animal individually. These animals are tended by able bodied members of the family during their time off from work and by schoolchildren and students during their vacations. The kolkhoz is committed to take back this livestock in December and, if the weight condition is good and the livestock is in the proper state of nutrition, to pay these families 1 ruble 52.6 kopecks per one kilogram of live weight gain.

Keeping private subsidiary farms and also developing contractual relations for fattening livestock and poultry make it possible to increase incomes and thus to improve the well-being of rural workers. Working on farmstead plots and caring for the animals provide a good deal of moral satisfaction. This has a favorable effect particularly on children who at an early age become involved in physical labor and communication with nature and the animal world.

Under modern conditions, private subsidiary farms also contribute to reinforcing the labor force in rural areas. Comrade L. I. Brezhnev in his book "Virgin Land"

writes in this regard: "The main thing for us about the virgin land were the millions of hectares and billions of poods, but it was also necessary for us to help people to establish their own gardens, livestock and poultry. Without this the millions would not have turned into billions. A rural resident without a kitchen garden is like a tree without roots."

There are about 300,000 village farmyards in Odesskaya Oblast and it is no secret that there are farmyards where there are not only no cows, but also no hogs or even poultry. This means that certain rural residents have changed from producers and consumers of meat, milk and eggs into just consumers of these products. Of course there are both objective and subjective factors which must be studied, and the correct conclusions must be drawn.

In Saratskiy, Tatarbunarskiy, Baltskiy and several other rayons, in addition to fattening large horned cattle, mutually advantageous cooperation in raising and fattening hogs has proved to be a worthwhile project. In 1980 the Pravda Kolkhoz in Baltskiy Rayon obtained about 250 hogs that were fattened on private subsidiary farms.

The milkmaid A. M. Shataylo obtained from the kolkhoz two piglets weighing 15 kilograms each, fattened them and returned them with an overall live weight of 308 kilograms. She received more than 200 rubles for this. The kolkhoz allotted her 834 kilograms of concentrated feeds for fattening them. The Shataylo family raised juicy and coarse feeds on their own farmstead plot. These feeds significantly augmented the animals' rations. Food wastes were also used to great advantage.

On the Druzhba Kolkhoz in Saratskiy Rayon it has proved to be a good idea to use a form of cooperation whereby, in addition to young hogs released for fattening on a cooperative basis, each worker obtained one or two young hogs on a preferential basis for private use. This contributed to increasing the number of head of hogs on private subsidiary farms and increasing meat production on the kolkhoz.

Concerned about maintaining the livestock that has been transferred for fattening to private subsidiary farms, kolkhoz specialists have organized painstaking zoo-veterinary care for them. Veterinaries and zootechnicians periodically make the rounds of the farmyards and give advice about how best to care for the animals and poultry.

The work done by party, soviet and agricultural agencies for rendering assistance in the development of private subsidiary farms of citizens and introducing the new form of mutually advantageous cooperation between them and public production made it possible for the first time under the Tenth Five-Year Plan to halt the decrease in the number of head of livestock and poultry in the individual sector of the oblast, to produce about 5,000 tons of meat on a contractual basis in 1980, and to deliver for fattening in 1981 25,500 head of large horned cattle, 10,000 hogs and more than a 100,000 head of poultry. This will make it possible to obtain an additional 8,000-10,000 tons of meat this year.

Thus the development of mutually advantageous cooperation between public and private subsidiary farms for fattening animals and poultry makes it possible to increase the oblast's meat resources by 5-6 percent; to utilize animal husbandry

facilities of the kolkhozes, state farms and private subsidiary farms more efficiently; to enlist housewives, pensioners, kolkhoz workers, sovkhos workers and employees in the sphere of production during their time off from work, and also schoolchildren and students during their summer holidays; to utilize feed resources more efficiently, including food and garden wastes, feeds from roadside areas, land that is unsuitable for other purposes and forest strips, that is, those areas that are practically not utilized in public animal husbandry; to reduce the time period for fattening animals and to improve their maintenance through individual care and obtaining large average daily gains of live weight; and to increase the family budget of a certain category of rural workers. The development of cooperative relations has a positive effect on increasing the number of head of animals and poultry on private subsidiary farms of the population and contributes to reinforcing the labor force in rural areas.

The fattening of livestock and poultry on the contractual basis is controlled by the kolkhoz board or the sovkhos directors, that is, it is a governed process which can be regulated, depending on conditions that arise in public animal husbandry.

In order to improve the form of cooperation and make sure that it develops in the necessary direction, it is necessary to publish more frequently on the pages of periodicals materials with such titles as "On Farmstead Plots," "Your Private Subsidiary Farm," "What Can the Village Farmyard Do," "The Advice of Specialists," "Experience in Fattening Male Calves" and so forth, which show the conditions for mutually advantageous cooperation, the achievements of the best workers, and the advice and recommendations of specialists.

When organizing competition for the best farmyard, rural soviets must determine which one it is not only in terms of external appearances, but also and most importantly in terms of the utilization of the farmstead plots, how much it produces and what the farmyard has provided under cooperative fattening. The village farmyard (of a family with 4-5 members) can fatten a maximum of 3-4 male calves or 5-7 hogs or up to 1,000 head of poultry annually. Since the kolkhoz still cannot provide all the feed for this number of animals and the members of the family cannot procure feed that is in short supply on their farmstead plot or on land that is unsuitable for other purposes that has been assigned to them, the fattening of a large quantity of livestock and poultry can lead to negative phenomena concerning feed procurement. And it is no wonder that there are individual cases where the agreements between the village farmyard and the public farm is not fulfilled, mainly because of late delivery of feeds.

The land assigned to the kolkhoz provides feed not only for the public herd, but also for livestock that is being privately kept by the citizens. It is probably necessary to take into account all of the livestock and all of the animal husbandry products that are produced on the land assigned to the kolkhoz. But to do this it is necessary to change the form of accounting and planning somewhat. It is necessary to have a unified procurement plan which will make it possible to motivate the kolkhozes to develop animal husbandry not only on their own farms, but also on private subsidiary farms.

Contracting livestock from the population and subsequently maintaining it (no less than two months) on the kolkhoz farm is not altogether profitable since it takes practically two months just for the animal to adapt (because of the change in feeding, the disturbance of the community, diseases and so forth), and during this time there is practically no gain of live weight. One must refrain from this practice of contracting. Livestock accepted after cooperative fattening must be sent to the meat combine within a couple of days. Otherwise there are cases where indicators for gain of live weight are not met.

It would be expedient to restore small hog farms on the kolkhozes and sovkhoses whose main task would be to provide young hogs for the kolkhoz workers and sovkhos workers and employees.

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AGRICULTURAL MACHINERY AND EQUIPMENT

EQUIPMENT SUPPLY, SERVICE ADVANCED

Regional Strengths, Weaknesses

Moscow SEL'SKAYA ZHIZN' in Russian 8 Dec 81 p 1

[Article: "Technical Arsenal of the Rural Areas"]

[Text] The successful solving of the tasks assigned by the 26th party congress to workers attached to the country's agroindustrial complex requires first of all an increase in the rates of development for agricultural production. In addition to other measures aimed at achieving these rates, a requirement exists for the further technical re-equipping of kolkhozes and sovkhozes and for improving the use of the machines and equipment that are already available.

In particular, during the November Plenum of the CC CPSU and the session of the USSR Supreme Soviet, control figures were approved for the delivery to the rural areas, during the present five-year plan, of approximately 30 billion rubles worth of tractors, trucks, grain harvesting combines and other agricultural machines. This is considerably more than the volume of deliveries of logistical resources to agriculture during the years of the Tenth Five-Year Plan. Thus the production of agricultural machines will increase by a factor of 1.4, including implements for the K-700 and T-150 tractors -- by a factor of 1.8. The overall capability of the tractors to be delivered to the kolkhozes and sovkhozes will exceed this indicator for the past five-year plan by 15 percent. The structure of the motor vehicle pool in the rural areas will be improved: an increase will take place in the proportion of machines having high carrying capabilities and in specialized motor vehicles. Machine building in behalf of animal husbandry and feed production will be developed at an accelerated tempo.

Agricultural machine building has been assigned the task of raising the technical level and increasing the reliability and durability of the machines and equipment. Moreover, this task cannot be solved merely through the construction of new plants. Improvements must also be realized in the work being performed by existing enterprises. The five-year plan is calling upon the machine builders to make extensive use of progressive technological processes and materials, to further mechanize and automate production operations and to introduce scientific and engineering achievements into production.

The rural workers must necessarily be pleased by the concern being displayed by the party and government for strengthening the logistical base of the kolkhozes and

sovkhozes to the maximum possible degree. At the same time, they are aware of the importance attached to increasing the return from all of these expenditures and especially from improvements in the use of equipment. Many collectives and rayons could be cited where this work is being carried out in a persistent and purposeful manner. For example, the machine-tractor pool is being operated in a highly productive manner on farms in the Baltic republics and in Moldavia and Kazakhstan, where the shift output per standard tractor exceeds the norm to a noticeable degree. Many farms in the Don and Kuban' regions and in Stavropol'skiy Kray are annually employing their grain harvesting combines in an efficient manner and the farms in Uzbekistan -- their cotton harvesting machines. For having achieved high indicators in the use of agricultural equipment during 1980, challenge red banners of the USSR Council of Ministers and the AUCCTU were awarded to Leningrad, Novosibirskaya, Sverdlovskaya, Dnepropetrovskaya, Tashkentskaya and Severo-Kazakhstanskaya Oblasts, Primorskiy Kray, Adzharskaya ASSR and also to 18 rayons in various zones of the country. Fine results were achieved this year by the machine operators in a number of oblasts in Kazakhstan, the Ukraine, the Baltic and western Siberia.

The return is especially high from the use of machines on those farms which employ more progressive forms and methods for operating their machine-tractor pools and industrial technologies for the cultivation of various agricultural crops. The carrying out of field operations using the resources of large mechanized complexes, involving work by highly skilled machine operators, and well organized domestic and technical services -- this is a tested and reliable method for the efficient use of agricultural machines and transport equipment and for raising the labor productivity of the machine operators.

Unfortunately, laborious work aimed at improving the operation of the powerful technical arsenal made available to agriculture by the country is still not being carried out on a daily basis in all areas. Many examples could be cited illustrating the inefficient use of equipment on the fields and farms, a careless and wasteful attitude towards maintenance of the equipment and low skills on the part of the machine operators. This is borne out by the following figures: the annual amount of tractor idle time at kolkhozes and sovkhozes throughout the country, caused by technical and organizational factors, amounts to 54-58 million tractor-days, or 12-14 percent of their annual working time. A reduction in this idle time of just 50 percent would be equivalent to supplying the rural areas with more than 100,000 additional new tractors. This then represents an immense field of activity for the party and farm leaders, specialists and machine operators, the motto of which was proclaimed from the tribune of the 26th party congress: "The economy must be economical!"

Today, with the kolkhoz and sovkhoz workers summarizing their annual results and analyzing their operational achievements and shortcomings, special attention must be given to the experience of leading workers and to ensuring that use is made of it in all areas. Such was the appeal made by the initiators of the all-union competition for ahead-of-schedule and high quality preparation of the machine-tractor pool for the 1982 spring period -- machine operators, workers and engineering-technical workers of farms and enterprises of Goskomsel'khoztekhnika for the Lithuanian SSR, Latvian SSR, Tatarskaya ASSR and Namanganskaya and Khersonskaya Oblasts.

The example set by agricultural machine operators in Alzeykiy Kray, who developed and adopted socialist obligations calling for the highly productive use of equipment during the 1981-1985 period, is deserving of support and dissemination on an extensive scale. Through the extensive use of progressive technologies and methods for organizing and accelerating operations and raising the return realized from improved machine operation, they plan to increase grain and sugar beet production in the kray during 1985 by 18 percent above the average annual level for the Tenth Five-Year Plan, potatoes -- by 39 percent, vegetables -- by 40 percent, meat -- by 26 percent, milk -- by 12 percent, wool -- by 11 percent and eggs -- by 12 percent.

All of the new collectives of agricultural workers are included in the socialist competition for successful fulfillment and over-fulfillment of the tasks for the five-year plan. And constant and serious attention must be given to all work concerned with the rational and efficient utilization of the technical arsenal of the kolkhozes and sovkhoses.

Reliable Agrotechnical Service Needed

Moscow SEL'SKAYA ZHIZN' in Russian 15 Dec 81 p 2

[Article by A. Severnyy, Candidate of Technical Sciences and V. Yambayev, Candidate of Economic Sciences: "A Machine Yard for Each Farm"]

[Text] Field operations have been completed at kolkhozes and sovkhoses throughout the country. The machine operators have delivered their equipment to the machine yards for the carrying out of repair work. To ensure the readiness of the machine-tractor pool for the forthcoming season of field work -- such was the appeal made to the agricultural workers by the initiators of the all-union competition -- the machine operators and repair workers of Lithuania, Latvia, the Tatarskaya ASSR and Namanganskaya and Khersonskaya Oblasts.

It is known that more than 60 percent of the agricultural machines, owing to the seasonal nature of the work, are used 150-400 hours each year. They lie idle for the remaining period of time. They are affected by various environmental conditions which lead to damage and premature breakdown.

The chief enemy of equipment at such times is corrosion. For the country as a whole, losses caused by corrosion and violations of the rules for storage amount to millions of rubles annually. The machines can be protected against such losses through the creation on the farms of machine yards, enclosed facilities and sheds, hard surface platforms and storage sheds. And each machine yard must have its own permanent technical service.

The recent decree of the CC CPSU and the USSR Council of Ministers entitled "Additional Measures for Ensuring the Preservation of Agricultural Equipment" is aimed at achieving these goals. The decree establishes specific schedules for the creation of a logistical base for the storage of machines in those areas where such a base is either lacking entirely or is insufficiently developed. We are of the opinion that the chief problem in this area lies in the fact that the increase that has taken place in the machine-tractor pool in recent years, throughout the country as a whole, has exceeded the growth in capital investments for creating the

logistical base required for the storage and technical servicing of equipment at the kolkhozes and sovkhoses. Herein lies the explanation for the increasing expenditures for equipment repair work and for the premature writing off of equipment.

An analysis of the status of storage operations in behalf of the machine-tractor pool, for example at kolkhozes and sovkhoses in Moscow Oblast (one of the more developed oblasts), reveals that only 35 percent of the farms have equipped machine yards and that 70 percent of the farms lack permanent services for their machine yards. Moreover, many kolkhozes and sovkhoses are failing to maintain documentation on the addition to and removal of agricultural equipment from storage, in conformity with the requirements set forth in the GOST [state standard]. Not all of the farms are utilizing the equipment and promising preservation materials which make it possible to reduce considerably the amount of labor involved in the storage of machines and to preserve the machines in a high quality manner. And such equipment and materials are available. This includes the serially produced preservation units OZ-9995 of GOSNITI [State All-Union Scientific Research Technological Institute for Repair and Operation of Machine and Tractor Fleets], AKZ-50(O3-4899) and O3-9905 of GOSNITI, ATO units and others.

A new and effective preservation material created especially for agriculture -- ZVVD-13 protective wax -- which has already been in production for 2 years at the Orenburg Petroleum Refinery, is being introduced into operations very slowly (this wax has not even been heard of in many areas). It is multi-purpose in nature: it protects metal, rubber, wood and paint and varnish materials; it is applied either by spray or brush and it does not require removal. For all practical purposes, 200-300 kilograms of the wax are sufficient for preserving all of the machines on an average farm. One ton of the wax costs 150 rubles and this is not very expensive.

However, use continues to be made in all areas of benzine-bitumen compounds for preserving machines, despite the fact that they provide protection for only 8-10 months, they require additional benzine expenditures and they must be removed in the spring. Only rarely do the farms employ preservation oils containing AKOR-1 and KP additives for achieving protection against corrosion.

Many farms lack specially equipped enclosed preservation stations. As a rule, the machines are presented for storage in the autumn, when the relative humidity exceeds 80 percent and the weather is marked by frequent rainfall or frosts. The rules set forth in the GOST categorically forbid the preservation of machines and parts to be carried out during such damp conditions. Thus, extreme importance is attached to establishing enclosed preservation stations on each farm.

It bears mentioning that in a number of republics, krays and oblasts, including Moscow Oblast, there are many farms which have achieved a high level of preservation for their machine-tractor pools. By way of examples, allow me to cite the Sovkhoz imeni Chapayev in Noginskiy Rayon, the Zavety Il'icha Kolkhoz in Domodedovskiy Rayon and the Moskovskiy Sovkhoz in Leninskiy Rayon. As a result of well organized technical services, the expenses for repairing tractors at these farms were reduced by 20-27 percent and even as high as 50 percent for agricultural machines. Each year the farms realize a savings of from 15,000 to 20,000 rubles

in the repair of equipment. Not only are the machines used for their entire amortization periods of service, but in fact roughly 30 percent of them are used for more than 7-8 years. The coefficient of technical readiness on these farms is lower than 0.95-0.98 and it is not falling.

In this regard, I would like to advise the farm leaders to create for themselves heated parking areas and garages for the inter-shift storage of tractors, especially high powered ones. The preservation and working efficiency of the equipment are dependent upon such facilities being available. Thus, specialists attached to the Tselinnyy branch of GOSNITI carried out a special inspection on farms in Tselinogradskaya Oblast, where there are many Kirovets tractors. They discovered that the annual output per tractor is twice as high on those farms where heated garages are available. The principal role here is played by the preservation of the tractors throughout the winter period. Specific expenses for technical services, repair work and the correction of defects in the machines turned out to be lower on these farms.

I would like to touch upon the question of the quality of the machines being supplied to the rural areas by industry. Indeed the reliability and durability of the equipment are dependent upon the quality of manufacture. A very important question is that of ensuring reliable anti-corrosion protection for the agricultural equipment during its production. Despite a number of individual successful designs, industry has still not fully solved this problem.

The machine operators and farm specialists are presenting valid requirements, for example, with regard to the quality of paint and varnish coverings. Quite often the quality of such coverings is low and especially in the case of machines used for protecting plants. There is also a lack of reliable hermetic sealing of the engines and electrical equipment of Kolos and Niva combines and on certain types of tractors. Up until recently, the combines were not equipped with covers for protecting the thrashers on the harvester-stacker side. The cost of such a cover does not exceed 2-3 rubles, whereas corrosion and deformation of the thin layer of metal on the screen and thrasher, caused by the absence of reliable hermetic sealing costs 35-40 rubles. Obviously, all of these expenses are borne by the farms.

Or allow me to cite another example. The majority of the machines are produced without collapsible supports that make it possible to remove the wheels, clearance frames and structures. The plants thus realize an economy in the use of metal and once again they shift concern for the supports over to the kolkhozes and sovkhozes. The farms consume a large quantity of deficit metal in order to make them and, even more important, they expend considerable additional amounts of labor and resources.

Not enough use is being made of rolled aluminum, zinc-coated steel, fibre-glass and other promising anti-corrosion materials in the designs for agricultural machines.

We are of the opinion that an urgent need presently exists for regulating such characteristics of equipment reliability as preservation and anti-corrosion protection, during manufacture, based upon the indicators embodied in the state

standard. The plan for such a standard has been developed and yet its introduction into operations is being delayed for various reasons. Meanwhile, further improvements in raising the efficiency of use of all agricultural equipment are dependent upon a rapid solution being found for this problem.

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PLANS FOR INCREASING SOIL FERTILITY IN RSFSR SET FORTH

Moscow SEL'SKOYE KHOZYAYSTVO ROSSII in Russian No 11, Nov 81 pp 17-18

[Article by V. Yermakov, deputy chief of the Main Planning-Economic Administration of the RSFSR Ministry of Agriculture: "Soil Fertility Must Be Increased in Every Possible Way"]

[Text] The level of technical equipment of agriculture rose considerably during the 10th Five-Year Plan. A total of 81.5 billion rubles, as compared to 59.7 billion in 1971-1975, were allocated for the sector's development in the republic. The strengthening of the material and technical base enabled kolkhozes and sovkhozes in the RSFSR to increase grain production by 11 percent even during years difficult in terms of weather conditions. The average annual yield of grain crops rose during the last five-year plans. However, this indicator does not fully reflect the true picture and does not show the negative consequences of the sharp drops in the yield during individual years. For example, this is how the yield of grain crops in Saratovskaya Oblast appears graphically. In this oblast during the last three five-year plans it averaged 11.1 quintals per hectare and on state strain testing plots, 19.7. It is characteristic that the fluctuations in the yield in the state strain testing network are much smaller than on kolkhozes and sovkhozes. A similar picture is observed in Volgogradskaya, Kuybyshevskaya, Penzenskaya, Ul'-yanovskaya, Rostovskaya, Tambovskaya and other oblasts.

The results of the 10th Five-Year Plan confirmed the need for the development on farms of an overall program of measures for an increase in soil fertility envisaging the adoption of scientifically substantiated farming systems and the establishment of a firm basis for the production by every kolkhoz and sovkhoz of stable harvests of all agricultural crops.

Now scientists and specialists in all oblasts, krays and autonomous republics have basically developed zonal farming systems, which take into account the latest achievements of scientific and technical progress in agricultural production. These studies take into account the soil-climatic and economic conditions of regions, which enables every kolkhoz and sovkhoz to develop its own, more specific, overall programs for an increase in soil fertility on their basis. In particular, measures for mastering a scientifically substantiated farming system have been approved in the same Saratovskaya Oblast on almost all farms for the current five-year plan. The structure of utilization of arable land, methods of soil cultivation and protection of soil against water and wind erosion are worked out in detail in them. Measures for the retention and accumulation of humus in the arable

layer through a fuller and more skilled utilization of organic and mineral fertilizers and the mastering of scientifically substantiated crop rotations, for the further development of reclamation and an extensive introduction of advanced technologies of cultivation of agricultural crops have been determined.

The fallow field, on which a set of operations for weed control, moisture accumulation and fertilizer application and other agrotechnical measures are to be carried out, is to play an important role in the oblasts, krays and autonomous republics of North Caucasus, the Volga Area, the Southern Urals and Siberia, where drought is repeated often.

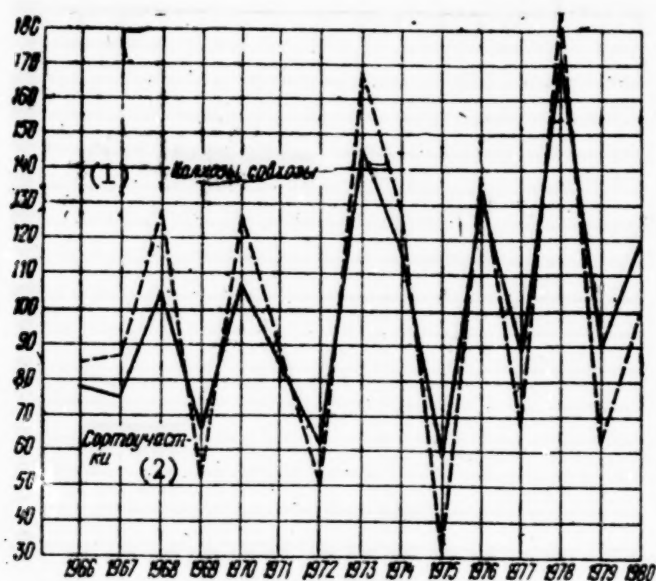


Diagram of Yield of Grain Crops

Key:

1. Kolkhozes and sovkhoses
2. Strain testing plots

The overall program of measures for increasing soil fertility developed in the Russian Federation also envisages a number of specific measures for the preservation of the sizes of arable land and for its careful and efficient utilization. As is well known, during the last decades the sizes of agricultural land have basically remained stable and, naturally, with the population growth its per-capita area has been reduced. Nevertheless, during the past five-year plan it was possible to increase the gross output on arable land almost 1.5-fold, as compared with the Seventh Five-Year Plan (in terms of fodder units), which in per-capita terms was 1,738 kg of fodder units as compared to 1,325 kg during 1961-1965 (table).

In the next few years the further increase in agricultural output is to be ensured mainly through an increase in the yield. At the same time, special attention will be given to a strict observance of scientifically substantiated crop rotations, wide introduction of the most productive varieties of grain and pulse crops and maintenance of a balanced content of organic substance in soil.

Indicator	On the Average in 1 Year				1976-1980 in percent of 1961-1965
	1961-1965	1966-1970	1971-1975	1976-1980	
Gross output from all arable area, million ton of fodder units	164.6	206.6	215.1	240.0	145.8
Gross output per hectare of ar- able land, quin- tals of fodder units	12.3	15.4	16.0	17.9	145.5
Per man, kg of fodder units	1325	1606	1627	1758	133

At the July (1978) Plenum of the CPSU Central Committee Comrade L. I. Brezhnev said that the entire arsenal of agrotechnical methods and all the possibilities and potentials must be now utilized to obtain maximum grain output, to increase soil fertility and to raise the standard of farming and the work of local party, Soviet and agricultural bodies, of farm managers and specialists and of sovkhoz and kolkhoz workers must be subordinated to this purpose.

Soil protective farming systems, which should become a powerful barrier to the destructive effect of water and wind erosion, play an especially important role. The set of antierosion measures for regions subjected to water erosion includes the retention and control of the flow of atmospheric precipitation and creation of a water resistant soil surface; in wind erosion zones, provision of a wind resistant surface soil layer and reduction in the velocity of wind in the ground layer.

The volumes of antierosion work increased slightly on kolkhozes and sovkhozes during the 10th Five-Year Plan. However, in 1980 soil protective cultivation of soil with stubble retention was carried out only on an area of 14.2 million hectares and sowing with stubble antierosion seeders was carried out on 12.8 million hectares, which is less than one-half of the minimally required volumes of such work.

The regrassing of eroded land, strip placement of agricultural crops and construction of antierosion forest belts were carried out on an extremely limited scale. That is why the overall program of measures for increasing soil fertility envisages bringing the volume of antierosion soil cultivation up to 25 million hectares, doubling the the amount of sowing with special antierosion seeders and carrying out a strip placement of crops on sizable areas. Plans have been made to establish 188,000 hectares of field and soil protective plantings and to carry out work on the detention and afforestation of gullies, ravines and river banks on an area of 221,000 hectares.

Organic and mineral fertilizers are of exceptionally great importance in the unified system of measures for an increase in fertility. During the 11th Five-Year Plan 54.8 million tons of active substance of mineral fertilizers are to be delivered to the agriculture of the Russian Federation, which is 29 percent more than

during 1976-1980. A total of 2.3 billion tons of organic fertilizers will be carted out to the fields of kolkhozes and sovkhoses, which will exceed the volume of their application during the previous five-year plan by 33 percent. For the purpose of increasing the efficiency of fertilizer application specialists of agricultural bodies and farms should more fully utilize the data of a qualitative and economic evaluation of land.

Agronomic science and practice have a vast arsenal of measures for the creation of favorable conditions for the development of plants and for the production of stable harvests. Their utilization with the maximum efficiency is today's task.

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